

Appl. No. 10/669,331
Am dt. dated June 9, 2006
Reply to Office Action of, January 25, 2006

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Withdrawn) A sexless coupling member for connecting a fire hose to a fire hydrant or another pressurized source of water on a pumper truck, comprising:

an internally threaded collar portion disposed about an axis and having an internally threaded section and an externally threaded section, the internally threaded section being adapted to receive an externally threaded neck of a fire hydrant outlet or a pumper truck outlet;

a valve support portion at the end of the internally threaded collar, the valve support portion having a radially extending annular surface facing the first end of the internally threaded collar and having an opening therethrough;

a gasket seated against the radially extending annular surface and adapted to seal with the externally threaded neck of the fire hydrant outlet or pumper truck outlet;

a flapper valve supported on a pintle extending across the opening through the radially extending annular surface;

an internal ring portion with an external thread unitary with the internally threaded collar portion and aligned with the opening through the radially extending annular surface, the internal ring portion having a pair of opposed holes therein for receiving the pintle which supports the flapper valve, the

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holes being closed by plugs adjacent the external thread to prevent water passing around the pintles from passing through the holes to locations beyond the threads;

an external ring having a lower portion with an internal thread for threading with the external thread of the internal ring portion to hold the external ring in integral relation with the internally threaded collar, the externally threaded collar portion having at least one through bore extending therethrough for receiving a locking pin when aligned with the at least one blind second bore in the internal ring to prevent rotation of the external ring with respect to the internal ring after threading the external ring onto the internal ring, the at least one second blind bore having a bottom which prevents pressurized water within the coupling from escaping therefrom through the external ring;

a radially extending seal adjacent to the external thread on the internal collar portion, the radially extending seal being engaged by the external ring adjacent to the internal thread thereon for sealing between the internal ring portion and external ring, and

hooked lugs extending axially from the external ring and arcuate grooves disposed between the internal and external rings, the hooked lugs and arcuate grooves being adapted to cooperate with a complementary sexless coupling on a hose.

Claim 2 (Withdrawn) The sexless coupling of claim 1 wherein the radially extending seal is made of neoprene rubber.

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Claim 3 (Withdrawn) The sexless coupling of claim 2 wherein the coupling further comprises a stiffener extending across the opening upstream of and aligned with the pintle.

Claim 4 (Withdrawn) The sexless coupling of claim 3 wherein the coupling further includes a second blind bore in the internal ring and a second through bore in the external ring aligned with the second blind bore in the internal ring for receiving a second locking pin.

Claim 5 (Withdrawn) The sexless coupling of claim 4 wherein the blind and through bores are in alignment with the locations of the projecting hooks extending from the external ring.

Claim 6 (Withdrawn) The sexless coupling of claim 5 wherein a sealing gasket is disposed between the external ring and a radially extending shelf on the internally threaded collar disposed adjacent to the internal ring.

Claim 7 (Withdrawn) The sexless coupling of claim wherein the coupling is made of aluminum or steel.

Claim 8 (Currently Amended) A sexless coupling member for connecting a fire hose to a fire hydrant or another pressurized source of water on a pumper truck, comprising:

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an internally threaded collar portion disposed about an axis and having an internally threaded section and an externally threaded section, the internally threaded section being adapted to receive an externally threaded neck of a fire hydrant outlet or a pumper truck outlet;

a flapper valve support portion at the end of the internally threaded collar portion, the valve support portion having a radially extending annular surface facing the first end of the internally threaded collar and having an opening therethrough;

a gasket seated against the radially extending annular surface and adapted to seal with the externally threaded neck of the fire hydrant outlet or pumper truck outlet;

a flapper valve supported on a pintle extending across the opening through the radially extending annular surface;

the flapper valve support portion having an internal ring portion with an external thread unitary with the internally threaded collar portion and aligned with the opening through the radially extending annular surface, the internal ring portion having a first radial shoulder extending radially outward from the external thread, and the internal ring portion having a pair of opposed pintle holes therein for receiving the pintle which supports the flapper valve, the pintle holes intersecting the external thread and being closed by unthreaded plugs adjacent to the external thread to prevent water passing around the pintles pintle from passing through the pintle holes to locations beyond the external thread threads;

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an external ring having a lower portion with an internal thread for threading with the external thread of the internal ring portion to hold the external ring in integral relation with the internal ring portion internally threaded collar, the internal ring having a second radial shoulder extending radially outward from the internal thread, and the externally threaded collar portion having at least one through blind bore extending therethrough for receiving a locking pin when aligned with the at least one blind second bore in the internal ring to prevent rotation of the external ring with respect to the internal ring after threading the external ring onto the internal ring, the at least one second blind bore having a bottom with an insert of sealing material therein, which insert prevents pressurized water within the coupling from escaping therefrom through the external ring; the internal thread of the external ring overlying the unthreaded plugs in the pintle holes to positively retain the unthreaded plugs in place;

an annular seal adjacent to the external thread on the internal collar portion and the internal thread on the external collar portion, the annular seal extending radially outwardly of the external and internal threads and being compressed between for sealing between the threads of the internal ring portion and the threads of the external ring only at the juncture of the flats and threads, and

hooked lugs extending axially from the external ring and arcuate grooves disposed between the internal and external rings, the hooked lugs and arcuate grooves being adapted to cooperate with a complementary sexless coupling on a hose, whereby the annular seal that is compressed between the first and second annular shoulders, the insert of sealing material in the blind bore and the unthreaded

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plugs in the pintle holes enable the sexless coupling to withstand water pressure as high as 400psi without leaking.

Claim 9 (Original) The sexless coupling of claim 8 wherein the annular seal is made of neoprene rubber.

Claim 10 (Original) The sexless coupling of claim 9 wherein the coupling further comprises a stiffener extending across the opening upstream of and aligned with the pintle.

Claim 11 (Original) The sexless coupling of claim 10 wherein the coupling further includes a second blind bore in the internal ring and a second through bore in the external ring aligned with the second blind bore in the internal ring for receiving a second locking pin.

Claim 12 (Original) The sexless coupling of claim 11 wherein the blind and through bores are in alignment with the locations of the projecting hooks extending from the external ring.

Claim 13 (Original) The sexless coupling of claim 12 wherein the coupling is made of steel or aluminum.

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Claim 14 (New) The sexless coupling of claim 13 wherein the insert of sealing material in the blind bore and the unthreaded plugs in the pintle holes are made of aluminum epoxy.

Claim 15 (New) The sexless coupling of claim 8 wherein the insert of sealing material in the blind bore and the unthreaded plugs in the pintle holes are made of aluminum epoxy.